



IMPACT AND EFFECTIVENESS OF CIRCUIT BREAKER IN STOCK MARKETS



Mohinder Singh

Assistant Professor, Department Of Commerce
Govt. College Sarkaghat Distt. Mandi (Himachal Pradesh)
E-mail: mohinder_hira@ymail.com

ABSTRACT

Most financial markets in the world have imposed circuit breaker systems, in the form of price limits and trading halts, in an attempt to reduce excessive market volatility. Similar to any other regulations, circuit breakers have proponents and opponents. Effectiveness of the "Circuit breakers" is very important in the financial markets of India. Circuit breakers are trading halts triggered by sharp price movements. They could be imposed on an individual financial instrument or the market as a whole. Price limits are maximum percentages or values that a security or derivative contract could rise or fall during a trading day. There is no trading halt and trading can continue within the limit bounds. Market-wide circuit breakers, which involve closing the entire market, are less popular than price limits on individual shares or derivatives because of their disruptive nature. There is no consensus on whether circuit breakers are effective tools during crises. It believes that circuit breakers provide investors with a "cooling off" period to calm the fear and panic that may

occur when there are steep market declines. Opponents believe that they could be counter-productive as they would lead to liquidity drain and diminish market depth. "Speed bumps" or "shock absorbers" are variations of price limits. Some futures exchanges in the US have adopted speed bumps to slow down (but not to halt) the trading of stock index futures. The limits are set at levels much narrower than those of circuit breakers or price limits. Present paper is an attempt to know the role and effectiveness of the circuit breaker in the Indian Stock Exchange.

KEYWORDS

Circuit breakers, capital market, Stock Exchange, trading, NSE, BSE

RESEARCH PAPER

Introduction

Many equity and futures exchanges around the world have mechanisms in place to temporarily suspend trading under certain market conditions, commonly referred to as circuit breakers. While the precise form that these mechanisms take can differ from one exchange to another, they are generally designed to achieve similar goals - to ameliorate unnecessary or transitory volatility in prices and to protect markets from periods of extreme illiquidity. Stock prices of companies listed on the stock exchanges are influenced by several factors- company financials, investor perception of the company's growth, industry trends, government regulations, market speculations, to name a few. Some factors are predictable and can be studied and analyzed using statistical tools like graphs and techniques like ratio analysis, trend analysis, theory of probability etc. Certain other factors and their influence on prices of a particular stock or the market in general and the degree of their impact are completely unpredictable. Since market sentiments cannot be predicted accurately and their impact on stock prices is difficult to judge, sometimes the movement of stock prices is difficult to judge; sometimes the movement of stock prices can beat all logic and move tremendously in any direction.

Market

Market is a place where buyer & seller come into contact to exchange goods and services.

Financial Market

Financial Market is a market where buyer & seller come into contact for exchange of financial assets. It provides channels for allocation of saving to investment.

Types of Financial markets

1. Money market
2. Capital Market

Money Market

Money Market refers to the market where borrowers & lenders exchange short funds to solve their liquidity needs. Money Market instruments are generally financial claims that have low default risk, maturities under one year and high marketability.

For e.g.:-T-bills, Commercial Paper, Call Money, etc.

Capital Market

The capital market in India is a market for securities, where companies and governments can raise long term funds. It is a market designed for the selling and buying of stocks and bonds. Stocks and bonds are the two major ways to generate capital and long term funds. Thus, the bond markets and stock markets are considered as capital markets. The capital markets consist of the primary market, where new issues are distributed to investors, and the secondary market, where existing securities are traded. In addition, the Indian Equity Markets and the Indian Debt markets do form part of the Indian Capital market. The Indian Equity Market depends mainly on monsoons, global funds flowing into equities and the performance of various companies. The Indian Equity Market is almost wholly dominated by two major stock exchanges -National Stock Exchange of India Ltd. (NSE) and The Bombay Stock Exchange (BSE). The benchmark indices of the two exchanges - Nifty of NSE and Sensex of BSE are closely monitored by the investors. The two exchanges also have an F and O (Futures and options) segment for trading in equity derivatives including the indices. The major players in the Indian Equity Market are Mutual Funds, Financial Institutions and FIIs representing mainly Venture Capital Funds and Private Equity Funds. The Indian Equity Market at present is a lucrative field for investors. The Indian stocks are profitable not only for long and medium-term investors, but also for the position traders, short-term swing traders and also very short term intra-day traders and speculators.

Circuit

Circuits are two types one is circuit for an index and another is for a stock. So, if an index or the price of the stock increases or declines beyond a specified threshold it is said to have entered into a circuit. SEBI specifies this threshold as a percentage of the prior day's closing figures.

Factors like market speculations force stock prices or indices to enter in a circuit. Such a condition is beyond the control of regulatory authorities. Hence they use the circuit breaker to curb such market situations. Circuit breaker, simply put is a set of rules formed and issued by SEBI in order to bring back normally in the stock markets in the event an index or stock enters a circuit. SEBI has different circuit breakers for indices and for stocks.

Circuit Breaker

Circuit Breaker refers to the mechanism that when the price fluctuation reaches a threshold value stipulated by the Exchange, the trading of stocks or futures will be suspended for a period of time, or trades will only be conducted within the stipulated threshold.

Origin of Circuit Breaker

The 1987 US Stock Market Crash: A 28.6% drop of S&P 500 index future in CME was recorded on Oct 19, 1987. After the crash, circuit breaker mechanism was launched in the NYSE and CME in 1988. The circuit breaker mechanism was later introduced to securities markets in Europe, Korea and Singapore.

Objectives of the Circuit Breaker:

The objective of circuit breaker is to control the stock markets at times when the move beyond reasonable limits. When a stock enters an upper circuit, it puts an investor who has already invested in the stock at an advantage. On the contrary a stock movement into a lower circuit places the investor at a disadvantage because it is now difficult to sell off these shares as they have lost a lot of money.

Place Circuit Breakers

This is another recent development in Indian Capital Market. We all know an excessive speculation is always risky for every investor. For reducing it, SEBI has introduced place circuit breakers. A circuit breaker is the system which stops to trade in stock market when prices move after a specific level. For example, if a stock is at Rs. 100 and circuit breaker is fixed at 5%, then stock trading will stop if it hit of Rs. 95 or Rs. 105. There are mainly two types of circuit breakers. One is index wise circuit breakers and other is stock wise circuit breakers. The index-based market-wide circuit breaker system applies at 3 stages of the index movement, either way viz. at 10%, 15% and 20%. These circuit breakers when triggered bring about a coordinated trading halt in all equity and equity derivative markets nationwide. The market-wide circuit breakers are triggered by movement of either the BSE Sensex or the NSE S&P CNX Nifty, whichever is breached earlier. In case of a 10% movement of either of these indices, there would be a one-hour market halt if the movement takes place before 1:00 p.m. In case the movement takes place at or after 1:00 p.m. but before 2:30 p.m. there would be trading halt for ½ hour. In case movement takes place at or after 2:30 p.m. there will be no trading halt at the 10% level and market shall continue

trading. In case if the market hits 10% before 1 p.m. then as explained there would be a one hour halt in trading and after resumption of trade in case if the market hits 15% in either index, then there shall be a two-hour halt. If the 15% trigger is reached on or after 1:00p.m. but before 2:00 p.m., there shall be a one-hour halt. If the 15% trigger is reached on or after 2:00 p.m. the trading shall halt for the remaining part of the day. Another type of circuit breaker is Circuit Breaker for a Stock; a price band specifies the span or price range for a stock to move without any interference from regulatory authorities. Only when the stock prices move beyond the range, it is considered as entering into a circuit and circuit breakers are applied. Daily price bands of 2%, 5%, 10% are applicable to different equity stocks, price band of 20% are applicable to all remaining scrip like Preference shares, Debentures. For example for a stock with a price band of 5% that closes at Rs. 100 on the previous day. The price band will be between Rs105 and Rs 95. There are two types of the this kind of circuit breaker is Upper circuit breaker and lower circuit breaker that means Stock prices can either move up or down and hence circuit breaker are required for movements in both directions. An upward movement over the threshold will cause a stock to enter an upper circuit. Similarly a down ward movement in stock price beyond the threshold will cause a stock to enter a lower circuit.

Impact of Circuit Breaker on Stock Market

Circuit breakers are trading halts used by Exchanges to guard against sharp fluctuations on the market. They are designed to give the market an opportunity to take a break and adjust to all available information before re-opening the market. They provide protection against excessive volatility during continuous trading sessions of the market. Circuit breakers provide the opportunity for greater information dissemination and assimilation to all market participants, including investors to facilitate better informed investment decision making during periods of high market volatility.

Considering the many different ways that circuit breakers can affect the trading process and market quality, it is clear that empirical analysis has an important role to play in assessing the efficacy of these instruments. Making such causal inference is complicated mainly by the inherent difficulty in defining an appropriate counterfactual that accurately describes the state of the world if the price process was unchanged but a circuit breaker had not occurred. Despite this, empirical analysis

using a variety of identification techniques have been conducted on a host of exchanges

We find that in the case of suspension length, longer auctions lead to a greater deterioration in market quality (greater price inefficiency for a given volume and number of trades) during lower limit events but find no significant effect for upper limit events. Regarding spillovers across securities, however, we find that suspensions at the lower limit lead to a statistically significant improvement in market quality for related securities following a suspension within a given sector (i.e. for those stocks with the same Bloomberg industry classification) but we do not observe a significant effect for stocks in other sectors. For events at the upper limits, we observe a significant increase in trade intensity and in the magnitude of market microstructure noise both for securities in the same sector as the event stock and outside that sector. Taken together, the evidence indicates that while circuit breakers may delay price discovery within a security potentially leading to efficiency losses and, for events at upper price limits, may do the same for other securities, they do help to prevent contagion of poor market quality across related securities when returns are negative.

Order-imbalance circuit breakers

Stock markets activate order-imbalance circuit breakers at the request of a specialist. The specialist asks for a suspension of trade in an individual stock when an order imbalance occurs. In these cases, suspension gives the specialist time to determine a market-clearing price based upon information obtained off the exchange floor. Following the price determination period, the market re-opens with the specialist taking a position at the newly determined price. The purpose of this circuit breaker is to protect the specialist from large losses.

Activation of these circuit breakers have unintentional effects. Trading halts in individual stocks create uncertainty about the correct level of the aggregate indexes. This, in turn, tends to be reflected in the futures contract. As a result, the futures contract becomes more likely to encounter a price limit. (On October 16, 1989, it did hit the open limit-5 points down.) When a price limit is reached futures trading stops, shifting some trades to the stock exchange. These trades tend to aggravate any existing order-imbalance problems.

Conclusion

We find that trading halts in stocks due to breaches of lower static limit prices leads to a significant improvement in market quality in the same industrial sector without

broadly significant increases in trading intensity. We interpret this as evidence that trading suspensions help to restructure the spread of market microstructure effects cross stocks in falling markets and argue that circuit breakers play an important role in preventing Impact on poor market quality. Circuit breaker is play an important role in controlling price fluctuations and is stabilizing the settlement system. While they are also reduce the trading volume. Circuit breaker is also reduces the volatility when market liquidity is low. In high liquidity situations, circuit breaker prevents the misdistribution of profits, which is caused by an increase in bankruptcies.

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